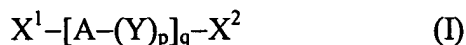
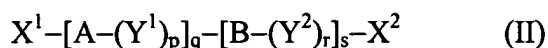


6. (Twice Amended) The fluorine-containing rubber composition for crosslinking of Claim 2, wherein the fluorine-containing elastomer has a carboxylic acid group at both ends of a trunk chain as a crosslinkable group and is represented by the formula (I):

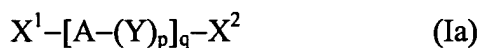


or the formula (II):

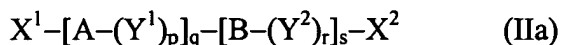


C3 wherein  $X^1$  and  $X^2$  are both a carboxylic acid group,  $Y$ ,  $Y^1$  and  $Y^2$  are the same or different and each is a divalent organic group having a carboxylic acid group, an alkoxycarbonyl group, an iodine atom or a bromine atom at a side chain thereof,  $A$  is an elastomeric fluorine-containing polymer chain segment,  $B$  is a non-elastomeric fluorine-containing polymer chain segment,  $p$  is 0 or an integer of 1 to 10,  $q$  is an integer of 1 to 5,  $r$  is 0 or an integer of 1 to 10,  $s$  is an integer of 1 to 3, at least one of  $Y^1$  and  $Y^2$  is a divalent organic group having a carboxylic acid group, and  $Y$ ,  $Y^1$  and  $Y^2$  is optionally contained at random in the segment  $A$  or  $B$ .

10. (Amended) A fluorine-containing elastomer which has a carboxylic acid group at an end of a trunk chain as a crosslinkable group and is represented by the formula (Ia):



C4 or the formula (IIa):



wherein  $X^1$  and  $X^2$  are both a carboxylic acid group,  $Y$ ,  $Y^1$  and  $Y^2$  are the same or different and each is a divalent organic group having a carboxylic acid group, an alkoxycarbonyl group, an

c4  
iodine atom or a bromine atom at a side chain thereof, A is an elastomeric fluorine-containing polymer chain segment, B is a non-elastomeric fluorine-containing polymer chain segment, p is 0 or an integer of 1 to 10, q is an integer of 1 to 5, r is 0 or an integer of 1 to 10, s is an integer of 1 to 3, at least one of Y<sup>1</sup> and Y<sup>2</sup> is a divalent organic group having a carboxylic acid group, and Y, Y<sup>1</sup> and Y<sup>2</sup> is optionally contained at random in the segment A or B.

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12. (Twice Amended) The fluorine-containing elastomer of Claim 10, which satisfies the following equation (1):

$$(S_{co}/S_{cf}) \times (D/2.03) \times (F/71.6) \leq 0.01 \quad (1)$$

wherein S<sub>co</sub>, S<sub>cf</sub>, D and F represent the following respective values;

c5  
S<sub>co</sub>: Total area of absorbances at the absorptions derived from carbonyl group of associated and non-associated carboxyl groups having the absorption peaks at from 1,680 to 1,830 cm<sup>-1</sup> when measurement is made with FT-IR with respect to the elastomer to be measured;

S<sub>cf</sub>: Area of absorbance at absorption derived from a harmonic sound of C-F bond having an absorption peak at from 2,220 to 2,840 cm<sup>-1</sup> when measurement is made with FT-IR with respect to the elastomer to be measured, and in the case where nitrile group is present, S<sub>cf</sub> is a value obtained by subtracting an area of absorbance at absorption derived from nitrile group having an absorption peak at from 2,220 to 2,300 cm<sup>-1</sup> from a total area of absorbances at whole absorption having a peak at from 2,220 to 2,840 cm<sup>-1</sup>;

D: Specific gravity of the aimed elastomer at 20°C; and

CS F: Fluorine content (% by weight) of the elastomer to be measured obtained by elemental analysis.

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18. (Amended) The fluorine-containing elastomer of Claim 11, which satisfies the following equation (1):

$$(S_{co}/S_{cf}) \times (D/2.03) \times (F/71.6) \leq 0.01 \quad (1)$$

wherein  $S_{co}$ ,  $S_{cf}$ ,  $D$  and  $F$  represent the following respective values;

CL  $S_{co}$ : Total area of absorbances at the absorptions derived from carbonyl group of associated and non-associated carboxyl groups having the absorption peaks at from 1,680 to 1,830  $\text{cm}^{-1}$  when measurement is made with FT-IR with respect to the elastomer to be measured;

$S_{cf}$ : Area of absorbance at absorption derived from a harmonic sound of C-F bond having an absorption peak at from 2,220 to 2,840  $\text{cm}^{-1}$  when measurement is made with FT-IR with respect to the elastomer to be measured, and in the case where nitrile group is present,  $S_{cf}$  is a value obtained by subtracting an area of absorbance at absorption derived from nitrile group having an absorption peak at from 2,220 to 2,300  $\text{cm}^{-1}$  from a total area of absorbances at whole absorption having a peak at from 2,220 to 2,840  $\text{cm}^{-1}$ ;

$D$ : Specific gravity of the aimed elastomer at 20°C; and

$F$ : Fluorine content (% by weight) of the elastomer to be measured obtained by elemental analysis.

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